

Municipal Setting Designations



MSDs: Another tool for Houston

Jennifer Clancey
Program Manager

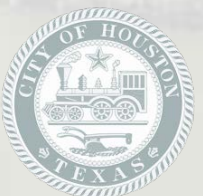


Municipal Setting Designations (MSDs)



Agenda

- City of Houston - Programmatic
 - What the MSD is
 - Who the MSD impacts
 - Steps in the MSD process
- MSD Applicant - Technical
 - Specific information on the site
3939 Montrose Boulevard
 - **Questions / Comments**



Environmental Protection in Texas

- ❑ The State of Texas has jurisdiction for environmental protection
 - ❑ Texas Commission on Environmental Quality (TCEQ)

- ❑ Environmental Complaints



- ❑ By Phone: 1-888-777-3186
 - ❑ Online: <http://www5.tceq.texas.gov/oce/complaints/>



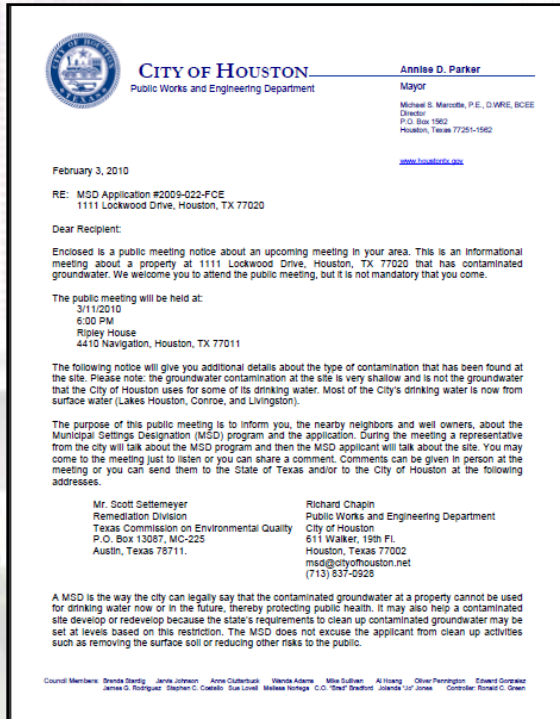
- ❑ By Phone: 311
 - ❑ Online: http://webintake.houstontx.gov/web_intake/Controller



Municipal Setting Designations (MSDs)

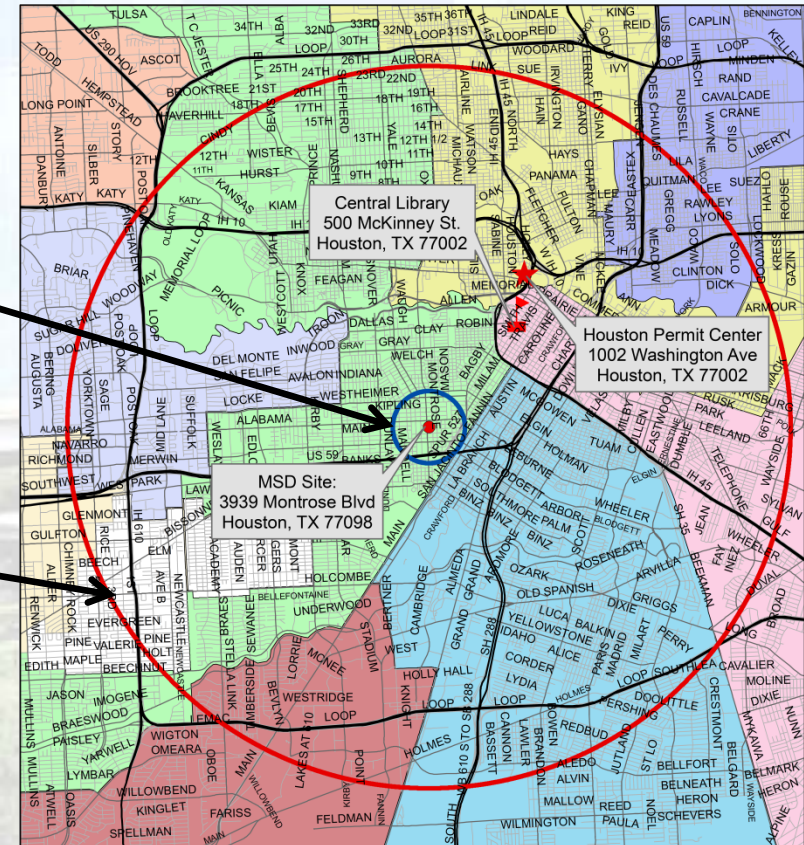


MSD Notice Letters



Property Owners
First-Class Mail
½-Mile Radius
City Requirement

Water Well Owners
Certified Mail
5-Mile Radius
State Requirement



If you received a notice through certified mail that means you have a water well according to the State's records

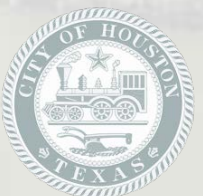


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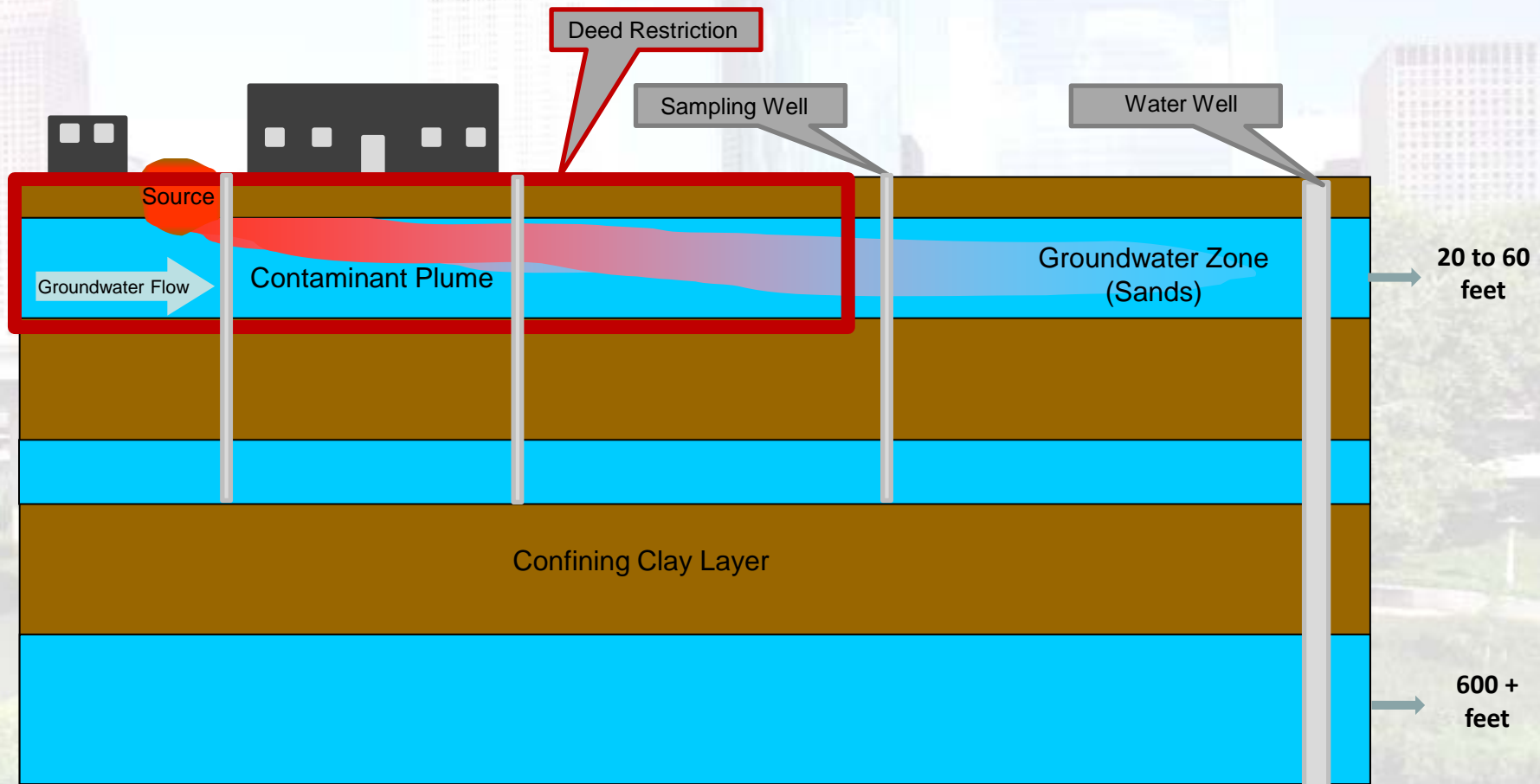


What an MSD is

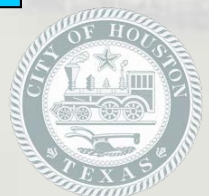
- **Voluntary** deed restriction to prevent the use of contaminated groundwater
 - No water wells on the subject property for drinking water purposes
 - A legally binding way to ensure the public is not exposed to contaminants



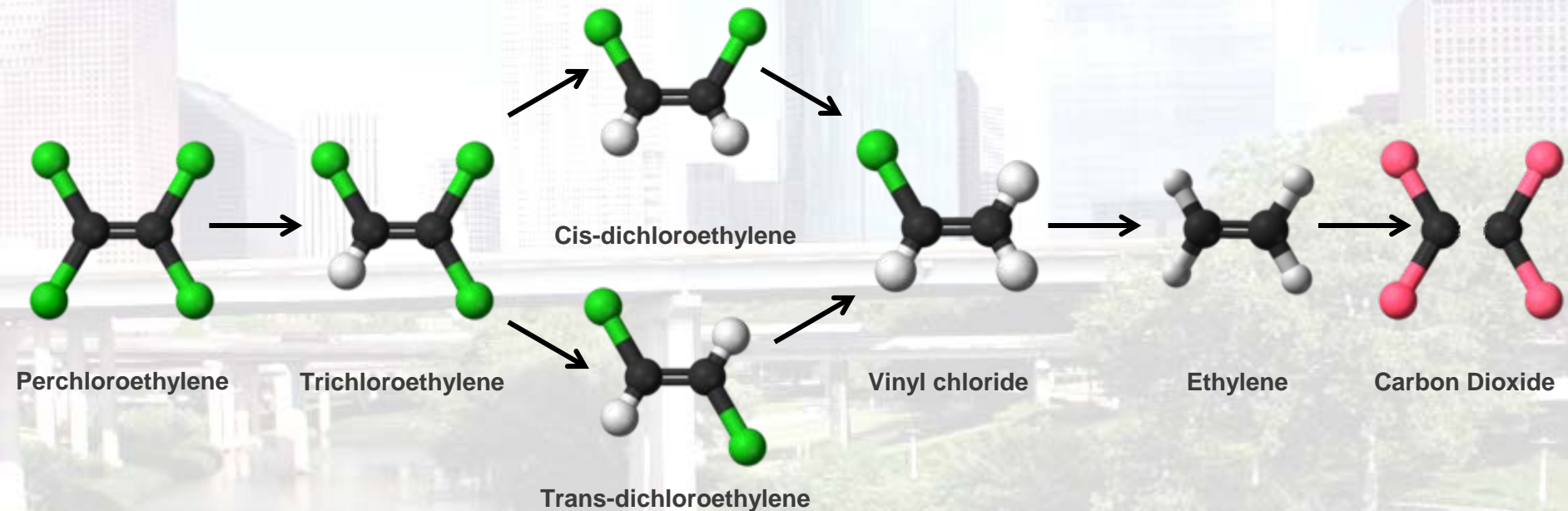
Groundwater Contamination



Please Note: Houston has shallow contaminated groundwater scattered across the City



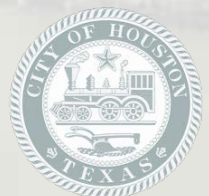
Chemical Degradation



This process takes decades, but is found to be the most efficient strategy.

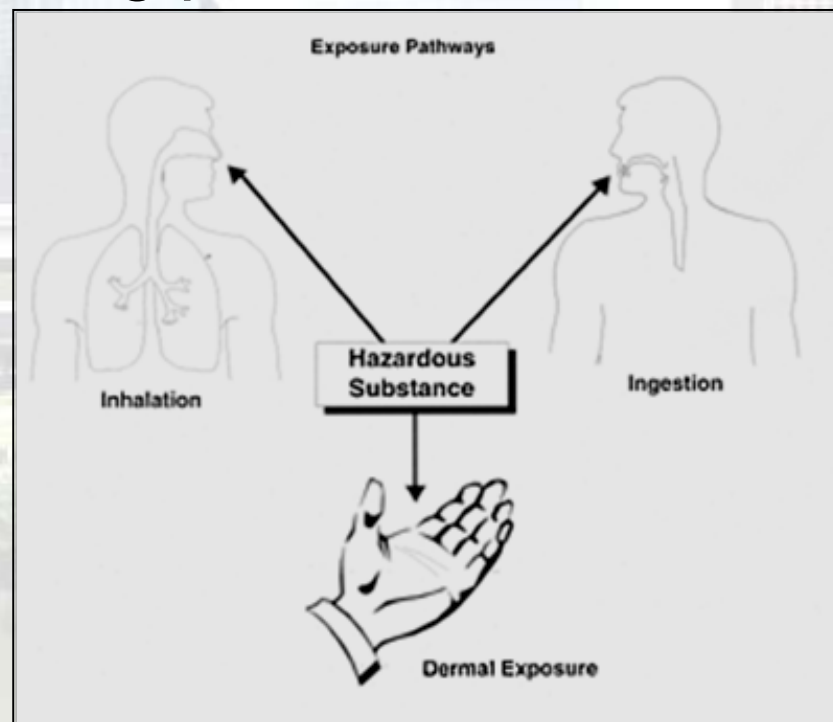


Municipal Setting Designations (MSDs)



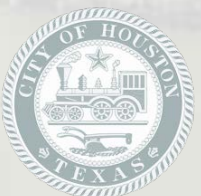
Exposure Pathways

- Cleanup Programs are based on public exposure to contaminants and reducing public health risks
- Exposure Pathways
 - ~~Ingestion~~
 - Inhalation
 - Contact (dermal)
 - Soil
 - Groundwater to surface water
 - Ecological



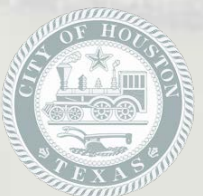
Environmental Cleanup

- The MSD is only **one step** in the cleanup process
- An MSD does **NOT** excuse the applicant from reducing risks to the public
- Responsible Parties are always responsible



Who the MSD Impacts

- An MSD does not affect you!
 - An MSD **DOES NOT AFFECT** your property
 - An MSD **DOES NOT AFFECT** your water well
 - There are **NO REQUIREMENTS** on you
- Drinking water supplied by the City is not affected

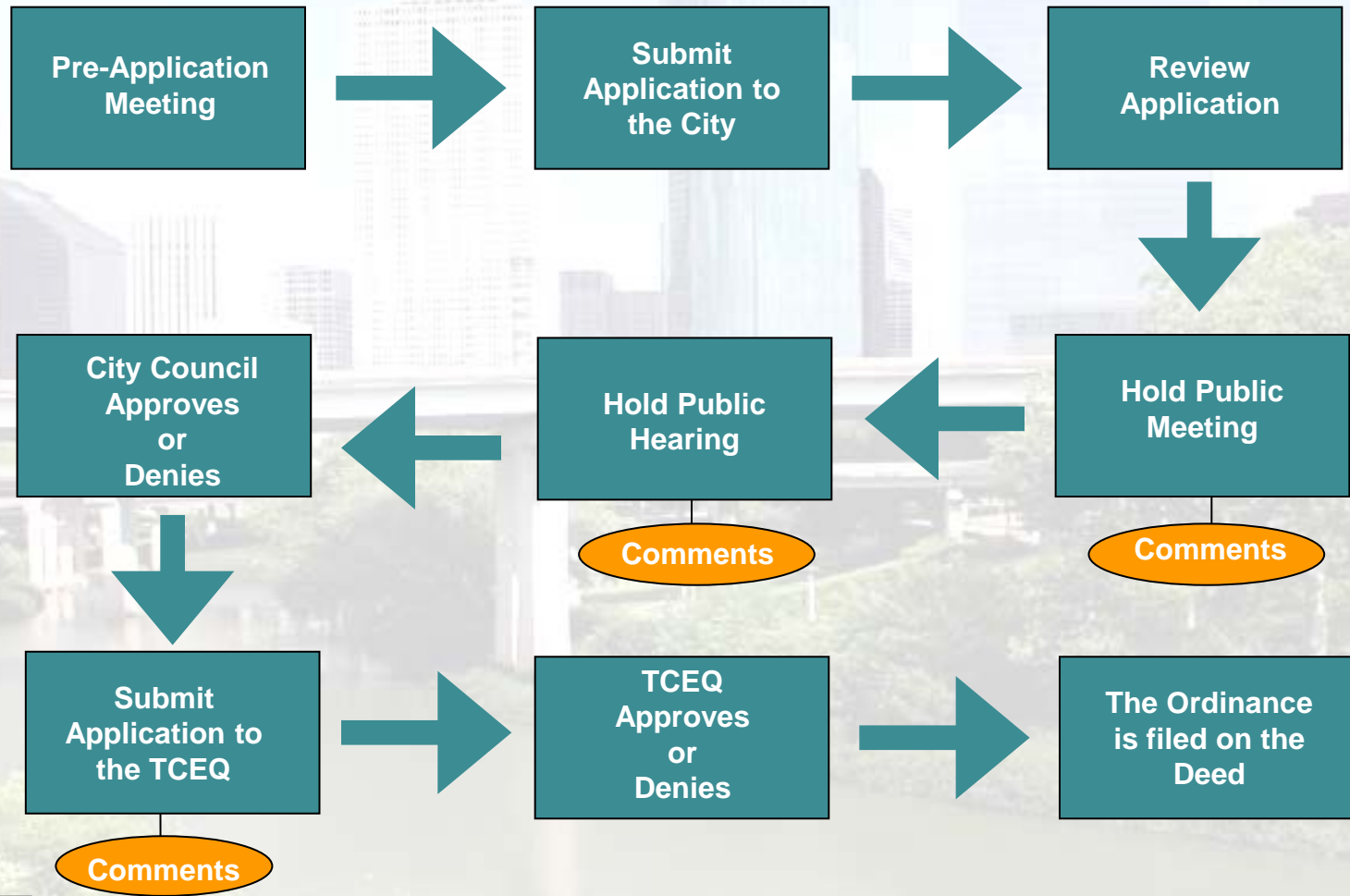


City's Requirements of the Applicant

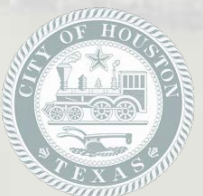
- Enrollment in a State or Federal cleanup program
- Thorough investigation confirming that the groundwater plume is stable or decreasing, and delineated
- Source of contamination has been removed
- A **third party** Engineer (P.E.) or Geologist (P.G.) must certify application



Steps in the Process

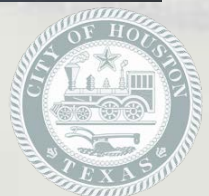


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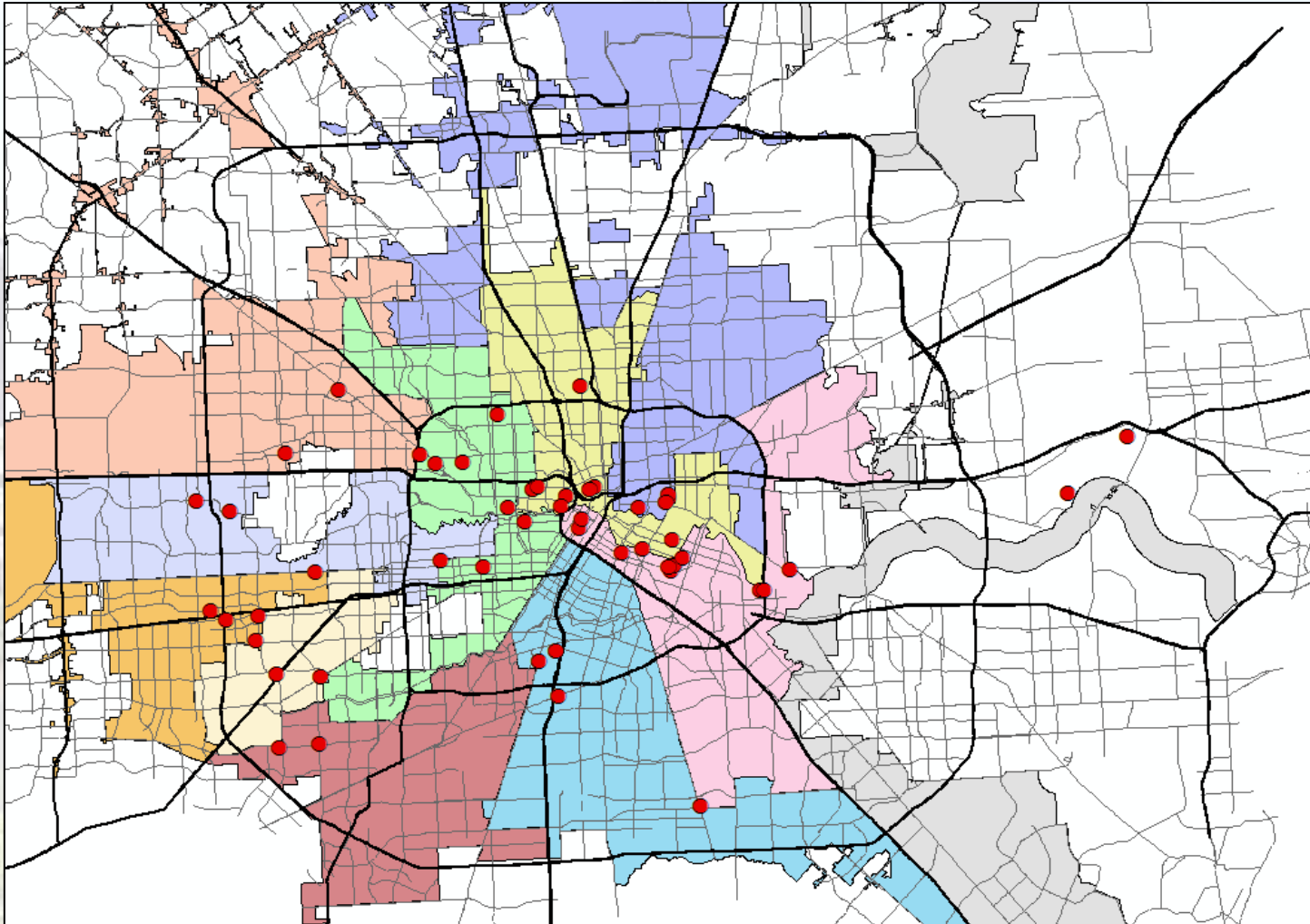


Why Support An MSD?

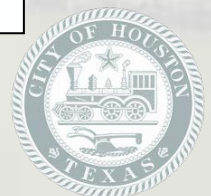
- Protects the public from consumption of contaminated groundwater
- Encourages clean-up of contaminated sites
- Promotes redevelopment of under-utilized properties



MSD Sites in Houston



Municipal Setting Designations (MSDs)

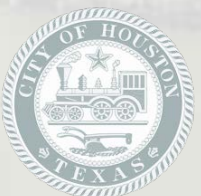


MSD Application Availability

- Central Library
 - 500 McKinney Street
 - Reference Desk



- Also available online at:
<http://www.publicworks.houstontx.gov/pds/municipal-settings-designation.html>
 - MSD in Review Page



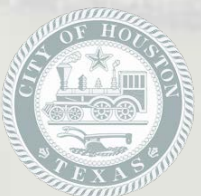
Public Hearing

- Date: January 15, 2015
- Time: 10:00 AM
- Place: City Council Chamber (Committee Meeting)
Transportation, Technology, & Infrastructure
- Address: 901 Bagby, Second Floor
Houston, Texas 77002

Any person wishing to speak on this issue must arrive at least 15 min early and sign the speakers list located on the front desk.



Municipal Setting Designations (MSDs)



Contact Information

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Houston, Texas 77002**

msd@houstontx.gov
(832) 394-9005



Municipal Setting Designations (MSDs)



Municipal Setting Designation

Mortgage Recovery Fund 3939, Ltd. Property

3939 Montrose Boulevard
Houston, Texas



MSD Applicant:

*Mortgage Recovery
Fund 3939, Ltd.*

Janet R. Meaux, P.G.
Project Manager
713-266-6056

January 7, 2015

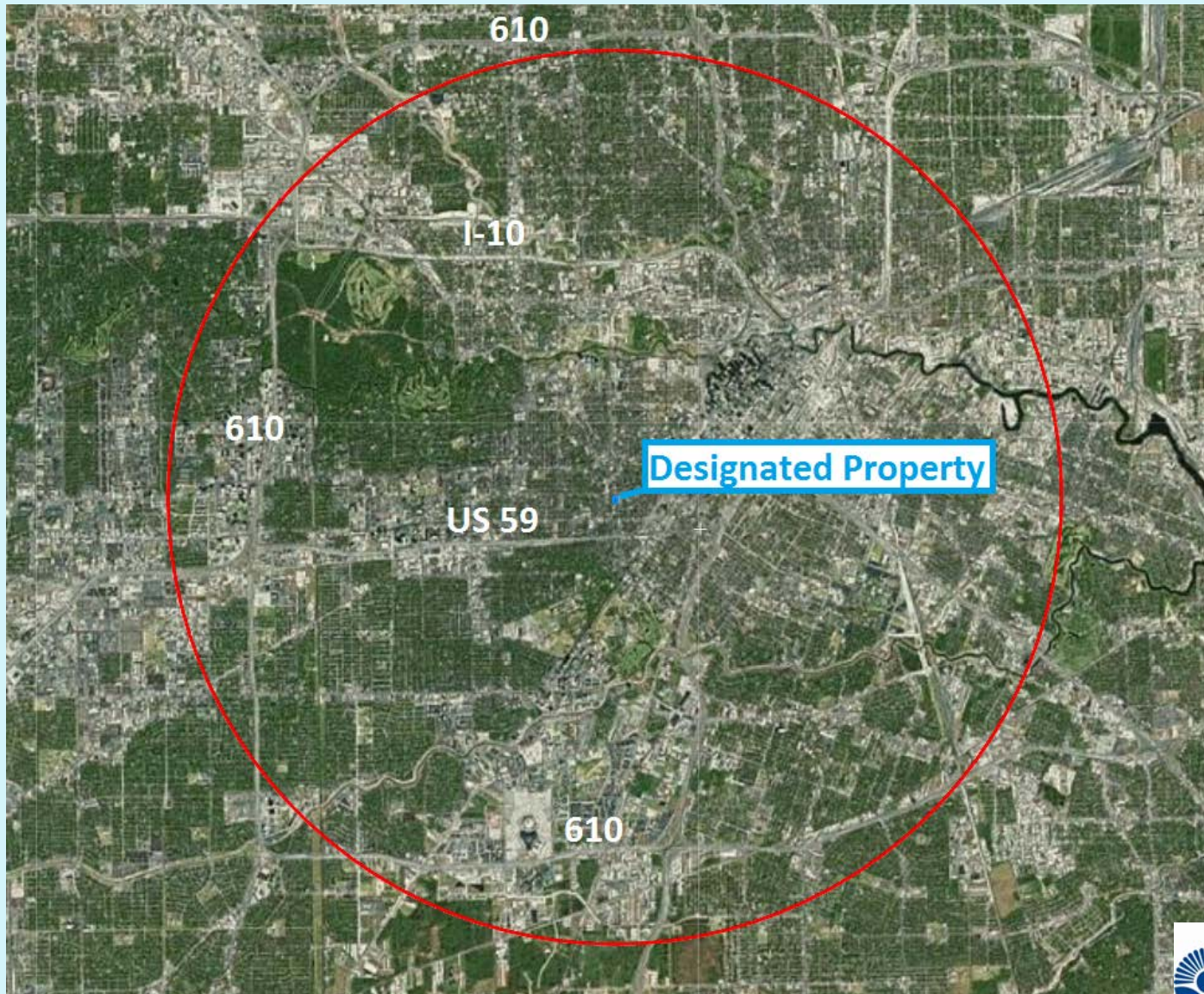
MSD No. 2014-076-MRF



PRESENTATION OVERVIEW

- Designated Property Location, Information, and Current Use
- Designated Property History
- Results of Property Assessment
- Summary

DESIGNATED PROPERTY LOCATION



DESIGNATED PROPERTY LOCATION



DESIGNATED PROPERTY INFORMATION

- Approximately 1.706 acres
 - Subject Property (1.205 acres) – strip shopping center addressed as 3939 Montrose Boulevard
 - Parking Lot (0.126 acres) – additional parking for 3939 Montrose Boulevard
 - Public Street and Right-of-Way (0.375 acres) – Branard Street and City-owned alley
- No changes in property use for designated property

SUBJECT PROPERTY HISTORY

- 1951 - construction of adjacent service station north of subject property
- Prior to 1960s – residential and commercial use (art school, a store, and offices)
- 1960s to 1980s – vacant, undeveloped land
- 1984 – construction of strip shopping center
- 1986 – one suite of shopping center occupied by dry cleaners, clothes cleaned on-site
- 2013 – dry cleaning machine removed

REGULATORY HISTORY

- Subject property enrolled in the Texas Commission on Environmental Quality (TCEQ) Voluntary Cleanup Program (VCP No. 2604) in 2013
- Municipal Setting Designation Application submitted to City of Houston in June 2014
- Affected Property Assessment Report submitted to TCEQ in July 2014

TCEQ REGULATORY LEVELS

- TCEQ has established different assessment and cleanup levels for chemicals of concern (COCs) in environmental media (e.g. soil, air, groundwater) for different types of sites.
 - For VCP sites, these assessment and cleanup levels are called protective concentration levels (PCLs).
 - For Petroleum Storage Tank (PST) sites, assessment levels are called PST Program Action Levels.

TYPES OF PCLS

- PCLs are different for each chemical and for each pathway for exposure, i.e., ingestion, skin contact, breathing vapors, etc.
 - Ingestion PCL – The concentrations of COCs below which the soil or groundwater are acceptable for ingestion, i.e., groundwater is safe to drink.
 - Non-ingestion PCL – The concentrations of COCs below which the soil or groundwater are acceptable for skin and inhalation exposure.

POTENTIAL CHEMICALS OF CONCERN

- Tetrachloroethene (PCE)
 - PCE is a dry cleaning solvent.
 - Used in former on-site dry cleaning operations.
- Trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC)
 - Natural degradation daughter products of PCE.
 - TCE, cis-1,2-DCE, and VC will continue to naturally degrade.
- Benzene
 - naturally-occurring component of petroleum and gasoline.

CHEMICALS OF CONCERN - SOIL

- 19 soil borings were drilled to identify source areas and determine extent of soil impacts.
 - No COC concentrations above ingestion PCLs were identified except benzene detected in the northern part of the site (MW-4).
 - Benzene is attributable to a previous gasoline release from the adjacent service station.
 - Benzene concentrations detected in the northern part of the site are below PST Program Action Levels
 - No COC concentrations were detected above non-ingestion PCLs

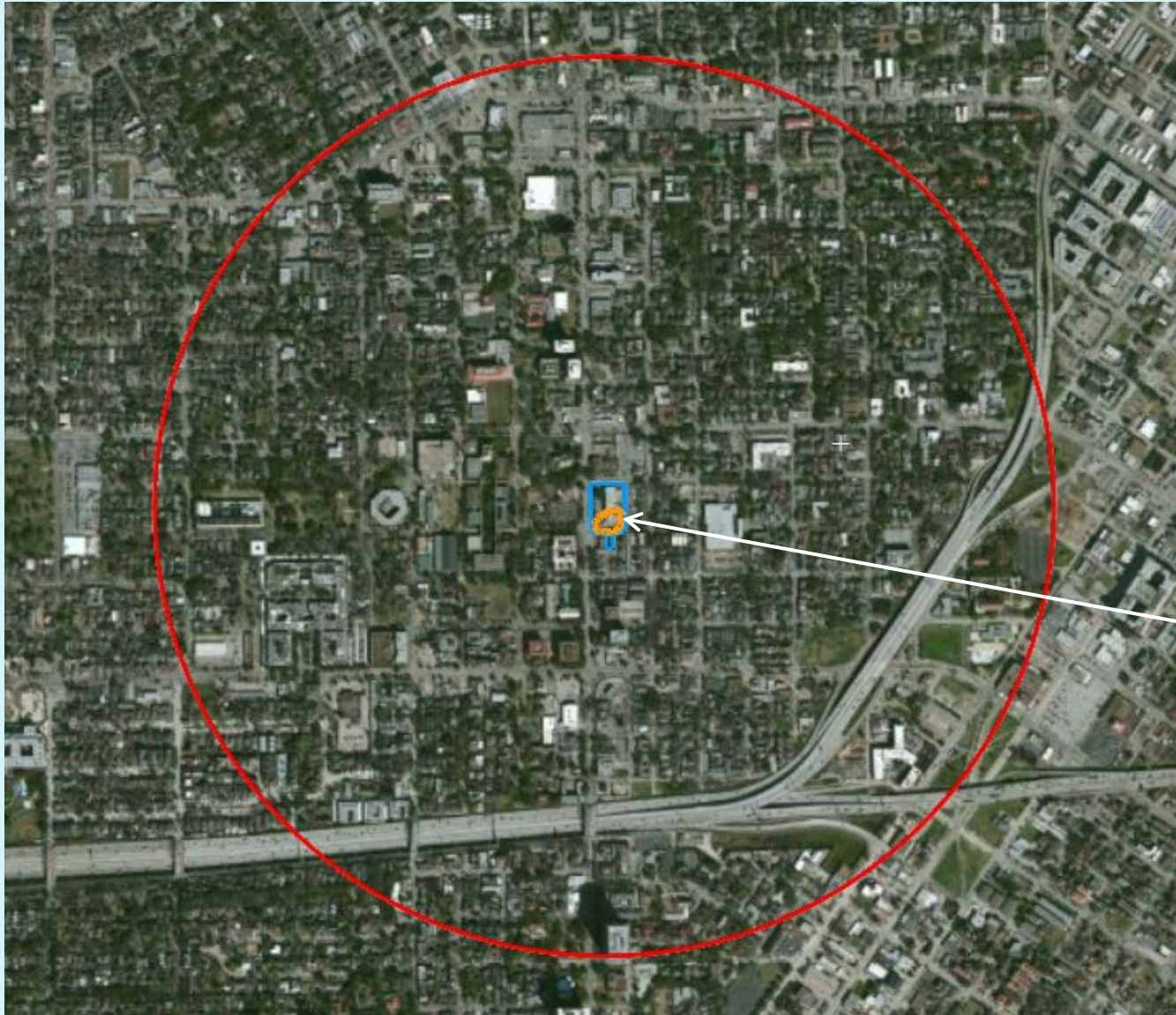
MAP OF SOIL BORINGS AND MONITORING WELLS



CHEMICALS OF CONCERN - GROUNDWATER

- 6 permanent monitoring wells were installed to determine nature and extent of groundwater impacts.
- COCs: benzene and VC concentrations are below ingestion PCLs.
- PCE, TCE, and cis-1,2-DCE concentrations are above ingestion PCLs, but below non-ingestion PCLs.
- PCE, TCE, cis-1,2-DCE, and VC are collectively called chlorinated ethenes.

GROUNDWATER PCLE ZONE Vs. 0.5-MILE RADIUS



Estimated
Extent of
Chlorinated
Ethenes

GROUNDWATER PCLE ZONE



Estimated
Extent of
Chlorinated
Ethenes

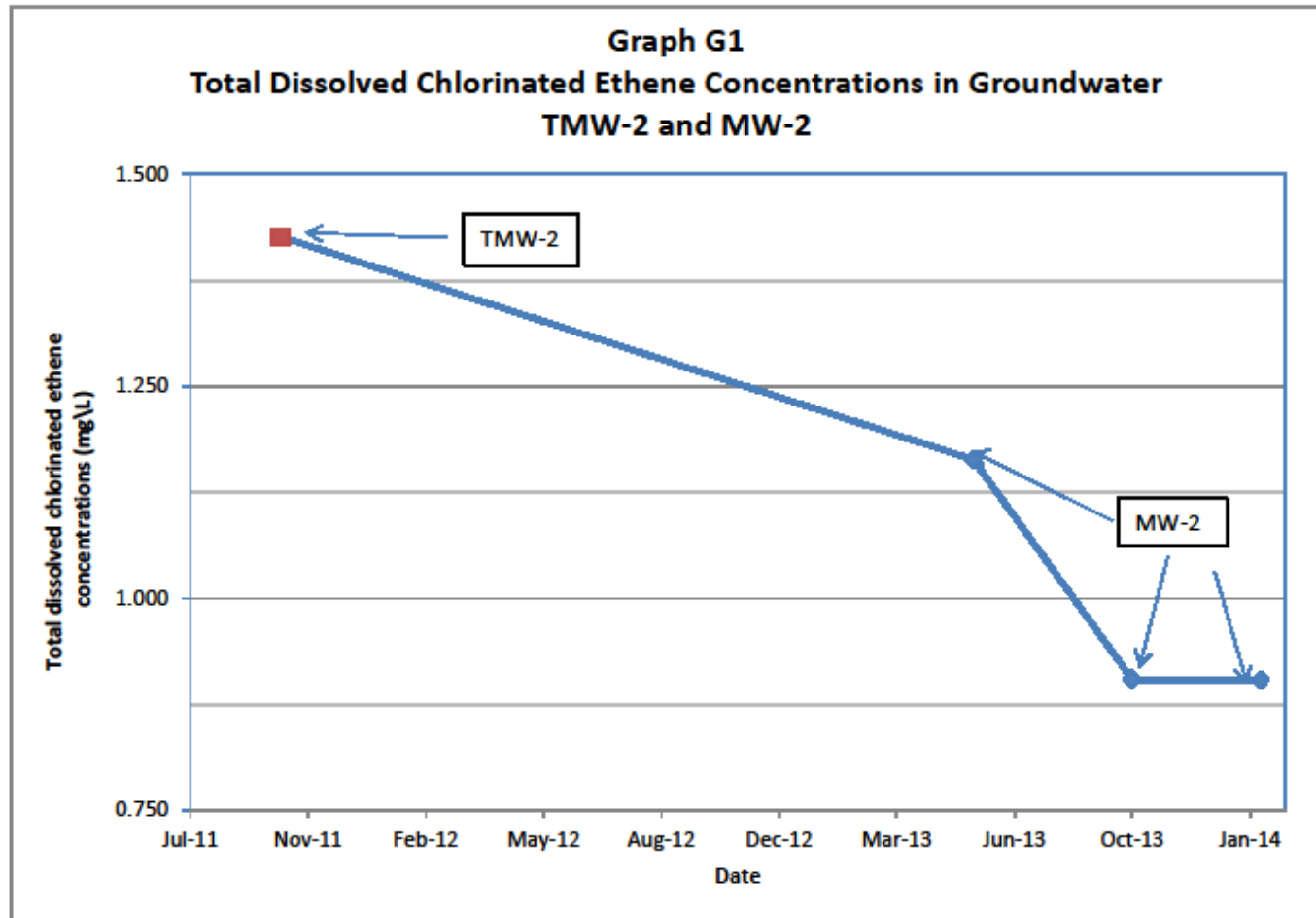
GROUNDWATER FLOW DIRECTION APRIL 2014



SOIL AND GROUNDWATER ASSESSMENT RESULTS

- No soil COC concentrations except benzene found above the TCEQ ingestion PCLs.
 - Benzene concentration is below the TCEQ PST Program Action Level.
- All impacted groundwater is contained within the designated property and COC concentrations are below non-ingestion levels
- Concentrations of COCs in groundwater are decreasing in the downgradient direction.

GROUNDWATER ASSESSMENT RESULTS



MW-2 was installed next to TMW-2

NON-INGESTION CONTACT PREVENTION VAPORS/SURFACE WATER

- Non-Ingestion Contact Prevention
 - The strip center building and associated parking lot limit rainfall infiltration through surface soils.
- Vapors/Surface Water
 - The COC concentrations do not present a risk for vapor intrusion.
 - There are no surface water bodies near the designated property.

SUMMARY

- Groundwater contamination is due to on-site dry cleaning activities
- Dry cleaning equipment was removed from the site in 2013
- Five groundwater sampling events have taken place since October 2011
- Groundwater contamination is stable, below non-ingestion PCL levels, delineated, and decreasing in the downgradient direction

**Municipal Setting Designation
Mortgage Recovery Fund 3939, Ltd. Property
3939 Montrose Boulevard**

**MSD Applicant: Mortgage Recovery Fund
3939, Ltd.**

MSD No. 2014-076-MRF



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